

REMARKS

Claims 1 to 9 were pending in the present application. Applicant has amended claim 1, 5, and 7, and canceled claim 6.

Claim Objections

The Examiner objected to claim 2 under 37 C.F.R. § 1.75(c) for failing to further limit the subject matter of a previous claim.

Applicant has amended claim 1, which now recites an "a sleeve defining a single bore with an inner surface having a constant diameter for receiving and contacting outer surfaces of the alignment feature and a ferrule of a fiber optic connector" Amended claim 1 (emphasis added). Thus, claim 1 recites a sleeve for receiving a ferrule of a fiber optic connector but the fiber optic connector is not recited as part of the optical assembly. Claim 2 further narrows claim 1 by reciting and thereby including the fiber optic connector as part of the optical assembly of claim 1. Accordingly, claims 1 and 2 now comply with 37 C.F.R. § 1.75(c).

§103 Rejections

The Examiner rejected claims 1 to 3 and 5 to 9 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,354,747 ("Irie et al.") in view of U.S. Patent No. 5,195,156 ("Freeman et al.").

Claim 1

Addressing claim 1, the Examiner stated:

However, Irie et al. do not disclose a sleeve defining a single bore with a constant inner diameter where the alignment feature and a ferrule of a fiber optic connector are inserted into opposite ends of the bore to be aligned relative to each other.

Freeman et al. teaches a sleeve 200 defining a single bore 207 with a constant inner diameter wherein the alignment feature and a ferrule of a fiber optic connector are inserted into the opposite ends of the bore to be aligned relative to each other. See Fig. 4 and Fig. 6.

September 8, 2005 Final Office Action, p. 3 (emphasis added). Applicant respectfully traverses.

Amended claim 1 now recites:

1. An optical assembly, comprising:

a package including an optoelectronic component;
an alignment feature mounted to a surface of the package; and
a sleeve defining a single bore with an inner surface having a constant inner diameter for receiving and contacting outer surfaces of the alignment feature and a ferrule of a fiber optic connector at opposite ends of the bore so they can be aligned relative to each other.

Amended claim 1 (emphasis added).

Freeman et al. discloses an insert member 200 having (1) a bore 201 for receiving an emitter 105 and (2) a bore 203 for receiving a ferrule 103. "As shown in FIGS. 3, 4, and 6, the insert member 200 includes bores 201 and 203. The bore 203 receives an end portion of the optic ferrule 303, and the bore 201 receives an end portion of the laser light emitter 105." Freeman et al., col. 2, line 66 to col. 3, line 1. As apparent from Figs. 3, 4, and 6, bores 201 and 203 have different inner diameters since emitter 105 and ferrule 103 have different outer diameters.

Freeman et al. further discloses that insert member 200 has an aperture 207 between bores 201 and 203 for allowing light to pass from emitter 105 to ferrule 103. "The two bores are separated from one another by a thin membrane 205 having a centered aperture 207." Freeman et al., col. 3, lines 2 and 3. As apparent from Fig. 6, aperture 207 does not receive and contact the outer surfaces of emitter 105 and ferrule 103.

Accordingly, amended claim 1 is patentable over the combination of Irie et al. and Freeman et al. because neither discloses "a sleeve defining a single bore with an inner surface having a constant diameter for receiving and contacting outer surfaces of the alignment feature and a ferrule of a fiber optic connector" as recited in amended claim 1.

Claims 2, 3, and 5 to 9

Claims 2, 3, and 5 to 9 depend from claim 1 and are patentable over the combination of Irie et al. and Freeman et al. for at least the same reasons as claim 1. Furthermore, Applicant hereafter specifically addresses the rejection of claim 5.

Addressing claim 5 by citing an aspherical lens 24B in Fig. 4A of Irie et al., the Examiner stated:

The cylindrical post has a bore hole allowing the emitted light from the package to pass through (Fig. 4, along the AX line, Fig. 5C, the central hole). The bore hole allows the light emitting from the condensing lens, in a shape of a solid partial sphere (claim 5) to pass through.

September 8, 2005 Final Office Action, p. 3. Applicant has amended claim 5, which now recites "the outer surface of the solid partial sphere contacting the inner surface of the single bore of the sleeve." This is not disclosed by Irie et al. because the outer surface of aspherical lens 24B does not contact the inner surface of any bore. Accordingly, claim 5 is further patentable over the combination of Irie et al. and Freeman et al.

Claim 4

The Examiner rejected claim 4 under 35 U.S.C. § 103(a) as being unpatentable over Irie et al. in view of U.S. Patent No. 6,652,158 ("Bartur et al."). Addressing claim 4, the Examiner stated:

However, Irie et al. do not teach the alignment feature comprises a solid post comprising a transmissive material allowing emitted light to pass through.

Bartur et al. teach an optical assembly having an "active element" that is also an alignment element (Fig. 3, 24) that transmit the emitted light from the laser diode.

September 8, 2005 Final Office Action, p. 3. Applicant respectfully traverses.

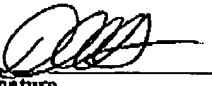
Bartur et al. discloses an active optical component 24 that is a TO can encasing a light source. "The optical component 24 is illustrated configured in a cylindrical package which may be a conventional cylindrical transistor outline (TO) package or 'TO can'." Bartur et al., col. 5, lines 45 to 48. As understood in the art, a conventional TO can is a hollow package that encases a die. Thus, active optical component 24 cannot be "the alignment feature comprising a solid post" recited in claim 4.

As shown in Fig. 2D, light is emitted out of the TO can through a lens 44 and not through the TO can itself. "A lens 44 of suitable type may also be provided as schematically illustrated." Bartur et al., col. 7, lines 44 and 48. Thus, light is transmitted lens 44 and not through the TO can itself. Thus, active optical component 24 cannot be "the alignment feature comprises a solid post comprising a transmissive material allowing a light emitted by the package to pass through" recited in claim 4.

Accordingly, claim 4 is patentable over the combination of Irie et al. and Bartur et al.

Summary

In summary, claims 1 to 9 were pending in the above-identified application. Applicant has amended claim 1, 5, and 7, and canceled claim 6. For the above reasons, Applicant respectfully requests allowance of claims 1 to 5 and 7 to 9. Should the Examiner have any questions, please call the undersigned at (408) 382-0480x206.

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Respectfully submitted,



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